

points than is the trimmed least-squares estimator and it is inherently insensitive to a preliminary estimator, which is a potentially serious problem with Welsh's estimator. Even when p , the number of parameters being estimated, is large relative to n , TRQ adheres fairly closely to the behavior predicted by its asymptotic theory. Like Welsh's estimator and trimmed least squares, it is scale- and reparameterization-of-design equivariant and therefore offers most of the attractions of the Huber M estimator without the difficulties created by the necessity of joint estimation of a scale parameter. This is also an advantage with respect to the estimators proposed by Bickel (1973).

As Welsh notes, L estimation plays an extremely useful role in the analysis of the one-sample problem; I believe that it could play a similarly constructive role in analyzing linear models. I hope others, like Welsh, will help to build a theory that would justify this belief.

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REJOINDER

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The discussants have provided valuable insights into the nature of the one-step trimmed mean in the regression problem and made original proposals of their own. Their empirical results are both helpful and encouraging.

The choice of initial estimator for one-step estimators is important as both discussants note. In addition to the technical requirement that the initial